

Improving Communication with the Deaf Patient

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Deafness affects 1.8 million people in the United States. The special communication problems of deaf people may lead to serious misunderstandings, particularly during a medical evaluation. Patients with no residual hearing usually read lips with only 40 percent accuracy. Furthermore, physicians may have great difficulty understanding the deaf patient's impaired speech and faulty written English. Underestimating the patient's intelligence, the doctor may give reassurances or oversimplified explanations.

The purposes of this paper are to clarify the reasons for the speech and language problems of deaf people and to dispel some common misconceptions about deafness and sign language. Recommendations are given for improving doctor-patient communication.

Many doctors share with lay people some misconceptions about deafness. Most physicians have learned about the diagnosis and treatment of hearing loss, but few about the psychosocial implications of deafness. Communication with deaf patients may be time-consuming and frustrating. Informed consent may seem unobtainable. The purposes of this paper are to help the physician: (1) understand some of the background for a deaf person's speech and language difficulties, and (2) become aware of ways to improve communication with deaf patients. The average physician encounters only one or two deaf patients a year but many of the principles and suggestions are also applicable to hard-of-hearing patients.

Definitions

The terms "deaf" and "hard-of-hearing" mean different things to different people, and misuse of labels may evoke strong negative reactions. Therefore, functional and social distinctions are probably most important.

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Functional Definitions

These are based on the ability to hear and understand speech:

Hearing impairment is a generic term for all degrees of hearing loss. An estimated 13.4 million people in the United States are affected.¹

Deaf refers to the 1.8 million people who do not understand speech even with hearing aids. (Categories 1,2,3 + 4, Table 1).²

Hard-of-hearing refers to the remaining 11.6 million people who understand speech with varying degrees of difficulty.

Hearing people are those with normal hearing.

Social Definitions

These are based on preferred mode of communication:

The Deaf Community includes the majority of deaf adults. Members communicate among themselves "manually" in sign language (Table 2), which provides a natural basis for socialization and marriage. A functionally hard-of-hearing person who signs may be a part of this community and consider himself deaf.

Oral Deaf Adults constitute a much smaller group of deaf people, who

communicate among themselves using lip-reading, oral speech, and writing. Some prefer to be called hard-of-hearing because, to them, deaf carries the historical connotation of "dumb" or "stupid."

Audiometric Classification

This is based on pure tone testing (Table 3)⁴ but is unreliable for deciding function. Though people with severe or profound hearing loss are often designated as deaf, some may be functionally hard-of-hearing when using hearing aids. The reverse is also true, ie, a person with moderate loss may be functionally deaf because of poor speech discrimination. In addition, hearing losses rarely fall within one category over all frequencies.

Unacceptable Terms

Deaf and dumb literally meant "deaf and stupid" until the late 18th century, when people began to realize that most deaf people could be educated.

Deaf-mute. In the 19th century "dumb" gradually acquired the connotation of "mute" and was finally replaced by it. Many people born deaf speak poorly, but only a very rare person is truly "mute."

Misconceptions

Speech and Language

Many hearing people assume a deaf person is mentally retarded if speech is impaired; yet, speech is a separate skill from language. For example, a person with limited intelligence may be able to learn a foreign language by rote but not understand the words or concepts. On the other hand, an intelligent, congenitally-deaf adult may have a good command of language but poor speech even after years of intensive speech training. A person who loses all hearing after adolescence usually has well-established speech and language patterns. Over the years, however, the voice quality will become higher and more monotone.

Lip-Reading or Speech-Reading

The assumption that deaf people can read lips with nearly 100 percent accuracy is erroneous. Many words with different meanings are indistin-

guishable: "Mama" and "papa"; "mall," "ball," and "pall"; "fifty" and "fifteen." Under optimal conditions, the range of speech-reading comprehension can be 47 to 83 percent with an average of 65 to 70 percent.⁵ Ideal conditions rarely exist in everyday conversation. Lip movements may be obscured or distorted. The speaker may look down or turn away. In addition, the manner of forming words varies from person to person and between geographic regions. English people tend literally to keep a "stiff upper-lip," making them more difficult to speech-read than most Americans.

To read lips with even 60 percent accuracy requires considerable skill; greater than that is an art. Under normal conditions deaf people general-

ly comprehend only 30 to 40 percent of what is said by speech-reading. Given two equally intelligent people with identical training, one may be an excellent speech-reader and the other, a poor one. No one knows why.

Intelligence

Deaf people are not "dumb." The curve for IQ is the same as that for hearing people.⁶ If given standard verbal tests, the majority of deaf persons will score below their hearing counterparts. Such tests do not evaluate their cognitive ability but rather their command of English. To date, therefore, the only useful tests are performance scales. These include the Leiter, the Performance Scale of the Wechsler, the Grace Arthur, and the Hiskey tests. Research is currently underway to improve testing of the hearing impaired.

Acquisition of English

Hearing people think that a deaf person with normal intelligence should be able to learn English through reading and writing. Developmentally, understanding and speaking a language come years before reading. Being unable to hear, a deaf person has unique problems learning English. In fact, the average deaf adult reads English at the fourth or fifth grade level.⁷ Since a poor command of English may have an important effect on doctor-patient communication, the physician should understand some of the reasons for this low achievement:

1. A deaf child must try to learn an oral language primarily through lip-reading. To get an idea of how difficult this would be, imagine yourself in a soundproof booth trying to learn Japanese from a teacher outside. You would have an advantage over a deaf child, however, because you know the teacher's mouth movements represent specific words which form sentences. The very concept of word meaning and language must be taught to a deaf child.

2. The rate of learning is slower by this method. Even if a hearing and a deaf child were started at the same time, the deaf child would quickly fall behind. For over a century, "oralists" and "manualists" have argued about

how to improve a deaf child's language. Oralists have banned the use of signs and gesture, insisting that deaf children would use them exclusively and not learn lip-reading, speech, and other oral skills. Manualists have been equally adamant that signing enhances rather than detracts from learning an oral language. They point to studies which show that deaf children of deaf parents score better on most language and achievement tests than all other groups of deaf children.⁸⁻¹¹ Such children have learned language through signs since infancy. In the last five to ten years, many educators have turned to "Total Communication" which combines Manual English with oral methods.

3. Many deaf children get a late start. For a hearing child, language acquisition begins in infancy. By age five, that child has a 2,000-word vocabulary and a good command of syntax and grammar.¹² Most deaf adults over age 40 did not begin school until they were six years old. In spite of the increasing availability of preschool education, many deaf children still start after three years of age. The major problem is delay in diagnosis. Parents usually suspect a hearing loss 8 to 15 months before the physician finally makes the diagnosis.¹³ Testing done in the doctor's office is usually inadequate. A deaf child may react to visual and tactile cues rather than to sound. Delay in speech is not a necessary prerequisite for formal testing; a competent pediatric audiologist can often make a tentative diagnosis by six months of age. Once the diagnosis is made, parents need help accepting the fact of a hearing loss and finding the proper educational setting.

4. Ninety percent of deaf children have hearing parents. If parents do not supplement lessons at home, language acquisition takes place primarily at school. These children have only half the hours available to them to learn language that hearing children do. Some of that school time is used for speech, auditory training, and other activities. The language taught may not include idioms and words to express emotions or to describe activities outside of school.

5. The inability to listen to other people's conversations or to hear radio and television further restricts learning. Without eavesdropping, children may not learn socially acceptable

Table 1. The Gallaudet Hearing Scale

- | | |
|-----|---|
| 1. | I can hear loud noises. |
| 2. | I can usually tell one kind of noise from another. |
| 3. | I can usually tell the sound of speech from other sounds. |
| 4. | I can usually <i>hear and understand</i> a few words if I can see the speaker's face and lips. |
| 5. | I can usually <i>hear and understand</i> a few words without seeing the speaker's face and lips. |
| 6. | I can usually <i>hear and understand</i> most of the things a person says to me if I can see his face and lips. |
| 7. | I can usually <i>hear and understand</i> most of the things a person says to me without seeing his face and lips. |
| 8. | I can usually <i>hear and understand</i> a discussion between several people without seeing their faces and lips. |
| 9. | I can usually <i>hear and understand</i> telephone conversations with a special telephone or amplifier. |
| 10. | I can usually <i>hear and understand</i> telephone conversations on any telephone. |

behavior and vocabulary. Without radio and television, they are deprived of an enormous amount of new information, which they have to learn from newspapers or other sources. A deaf person with a fourth-grade reading level is unlikely to read enough to bridge this gap.

Sign Language

For more than a century, the general public and many educators of deaf children have considered sign language little more than a primitive mode of communication. On the contrary, it is possible to say most things in sign language, particularly Ameslan (See Table 2), with any desired degree of subtlety or sophistication.

Sign language is not universal. Though there are regional "dialects," deaf people from various parts of the United States can understand each other. They usually cannot readily understand deaf individuals from other countries. The sign language used in Sweden is as different from Ameslan as Swedish is from English. Word-for-word translation from Ameslan into English may result in poor sentence structure just as a similar translation from Swedish would. The resulting "broken English" has given Ameslan a reputation of being "bad" language, which it does not deserve.

Interpreters

Hearing people usually underestimate the complexity of sign language. They may be inclined to use any person as an interpreter who has shown even the slightest knowledge of signs.

1. *Beginners* often believe that they "know" sign language if they have learned to fingerspell. It takes only about 30 to 60 minutes to learn the manual alphabet. Many hours of practice are required to "send" quickly, and months or years, to "receive" accurately. Learning Ameslan is as difficult as learning French. A beginner obviously could not be an effective interpreter.

2. *Teachers* of the deaf may interpret well for children but not necessarily for adults. The vast majority of teachers know Manual English only. They may be completely unaware of the many subtle differences in Ameslan signs. For example, doing the sign for "shy" twice means "prosti-

tute."

3. *Relatives* of deaf people may not be reliable interpreters. Unless specifically asked to, they will not translate word for word; thus, they become information filters. If they are asked questions *about* the patient, answers may be misleading or erroneous. Some deaf people use Signed English with their hearing spouses. These spouses would be unable to interpret in Ameslan for other patients.

4. *Professional interpreters* are available in most large cities. They usually have been certified at one of

four levels by the Registry of Interpreters for the Deaf (RID). Established in 1964, the RID now has chapters in most states. In addition to certifying interpreters, this group supervises training and promotes high ethical standards, including confidentiality. The job of a professional is to convey accurately all messages between the deaf and hearing individual but not to answer questions *about* the patient. With such an interpreter, an interview can be carried on at a normal pace; translation is virtually simultaneous both into and out of sign language.

Table 2. Types of Sign Language

Fingerspelling

- Spelling words with the fingers using the manual alphabet.

Ameslan

- Acronym for American Sign Language. Sometimes called "old signs."
- Language of the American Deaf Community.
- *Not* a translation of English.
- A true language complete with syntax and idioms.³
- Consists of about 5,000 signs with specific meanings.
- Any English word without a sign can be fingerspelled.
- Color and subtlety of meaning conveyed by facial expression, "body language," and magnitude or crispness of hand movements.

Manual English

- An exact translation of English into signs.
- Used in "Total Communication" classes to teach grammatically correct English.
- Signs may be the same as Ameslan signs or "new signs."
- Each sign stands for an English word and not for the various meanings. For example, only one sign is used for "have," yet Ameslan has several for "possess," "need to," past tense, etc
- English articles and ending such as "-ing," "-ed," "-ness," etc have separate signs tacked on to root signs. Ameslan omits these.
- Variations include Seeing Exact English (SEE) I and SEE II.

Signed English

- Ameslan signs used in English word order but omitting English endings, articles, etc
- Purpose is to sign English rapidly without worrying about grammar.
- Used in post-secondary education and often between deaf and hearing people.

Rochester Method

- A translation of English into fingerspelling.
- Used in some classrooms to convey exact English.
- Lacks color and expression, requires much concentration to "read," akin to listening to a hearing person spell a speech.

Table 3
Classification of Hearing Loss
International Standards Organization
1964

| | |
|-------------------|----------|
| Profound | > 91 dB |
| Moderately severe | 71-90 dB |
| Severe | 56-70 dB |
| Moderate | 41-55 dB |
| Mild | 26-40 dB |
| Normal | 0-25 dB |

Hearing Aids

Although an aid is a useful external signal that a person has a hearing loss, most people unconsciously think of it as a "cure." They also think that raising their voices will improve understanding. In fact, this may be quite annoying. For patients with cochlear recruitment, the sound is increased far more than for the speaker. Some adults have abandoned aids which permit them to hear only warning sounds or detect, but not understand, speech because hearing people have accused them of deception. If they react to a barking dog, for example, they "obviously can hear." An aid merely amplifies sound, like turning up a tape recorder. It does not select speech out from the background. Whatever distortion is built into the system (the aid itself, the cochlea, or the central nervous system CNS connections) is also amplified.

Suggestions for Improving Doctor-Patient Communication

General Suggestions

1. Determine the amount of speech reception the patient has. A useful tool for this is the Gallaudet Hearing Scale (Table 1). Note whether the answer applies with or without aids.
2. Ask the patient which mode of communication is preferred: oral, signing, writing, or a combination.
3. Do not assume that head-nodding means the patient understands you. It usually is an encouragement to keep the conversation going rather than getting stuck on a word or phrase. Remember that the average deaf person only comprehends about 40 percent of what is said by lip-reading.

4. Make liberal use of writing. Speech-reading and gestures may be adequate during a physical examination but are usually not sufficient for taking histories, explaining problems, or giving instructions.

Suggestions for Oral Communication

1. Provide optimum conditions for lip-reading: (a) Face the patient at all times when speaking. Do not look down at the chart or turn to reach for equipment. (b) Remove cigarettes and pipes. Talking out of the side of the mouth distorts lip movements. (c) Try not to stand in front of a light source such as a lamp or window. If you do, your face will be in shadow and your head surrounded by a glare. (d) Speak naturally but enunciate clearly. Exaggerating, slurring, or speaking words rapidly distorts them and makes them unreadable. (e) Smooth mustaches away from the mouth to make the lips more visible.

2. Minimize environmental noise. For example, turn off air conditioners. Excess noise interferes with auditory speech reception and is amplified by hearing aids.

Suggestions for Using Interpreters

1. If sign language is the patient's primary method of communication, ask the patient if he or she wishes to have an interpreter. If so, ask which one. Some patients may prefer a particular person. Others may refuse to discuss personal matters if either a stranger or a friend is present.

2. Avoid using employees, friends, or relatives as interpreters unless you know they are skilled in the type of sign language the patient uses and the patient is willing to have them interpret.

3. In some cases professional interpretation may be the only way to get accurate information and, therefore, will be well worth the fee. Examples of such situations might include genetic counseling or taking a history from a native user of Ameslan who has little English. Professional interpreters may be contacted by writing or calling the national RID office.* In some places, the local Speech and Hearing Center may have this information.

4. Have the interpreter sit next to you rather than next to the patient.

*Registry of Interpreters for the Deaf, Inc., P.O. Box 1339, Washington, DC 20013. Phone: (202) 447-0511.

This permits the patient to watch both of you. Shades of meaning or emphasis shown by your facial expression may be important but not picked up by the interpreter. Equally important, this seating arrangement encourages you to converse with the patient and not with the interpreter. Once again, the patient's facial expression may be vital to your assessment of the answers.

5. Even when using an interpreter, enunciate clearly so the interpreter will not have to lip-read you!

Make allowances for a deaf person's poor speech or inaccurate written English without making the judgment that the patient is of subnormal intelligence. Most deaf patients are capable of understanding careful explanations. Indeed, this is necessary for informed consent.

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